DOCUMENT RESUME

ED 415 834 IR 018 684

AUTHOR Xu, Gong-Li
TITLE Advantages and Disadvantages of Using E-Mail as Instructional Aid: Some Random Thoughts.
PUB DATE 1996-04-00
NOTE 10p.; Paper contributed to the Teaching in the Community Colleges Online Conference, "Innovative Instructional Practices" (1st, Kapiolani Community College, April 2-4, 1996).
AVAILABLE FROM http://leahi.kcc.hawaii.edu/org/tcc conf96
PUB TYPE Reports - Evaluative (142)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Class Activities; Computer Anxiety; Computer Mediated Communication; *Computer Uses in Education; Cooperative Learning; Educational Technology; *Electronic Mail; Feedback; Foreign Countries; Higher Education; Student Participation; Teacher Participation; Teaching Methods; Writing (Composition)
IDENTIFIERS Access to Computers; *Barriers to Participation

ABSTRACT

This paper explores the educational benefits and limitations of e-mail as an instructional aid to classroom-based teaching. It looks at practical ideas of how e-mail has been used to aid classroom instruction, and highlights and examines each usage of e-mail in terms of its effects on classroom teaching. E-mail systems have been used for classroom activities such as: online material presentation, online collaborative and project work, online help hotlines, online group discussions, and evaluation. The advantages of computer mediated communications in classroom use include: developing academic discourse, collaborative and project work, knowledge building, maximizing the knowledge and experience of all participants, increasing equity of participation, cross-cultural participation, development of reflective writing skills, overcoming social isolation, emotional involvement, ready access to help and support, feedback to and direct student contact with the central academic team, active and interactive participation, freedom from constraints of time and location, and learner control. Disadvantages of computer mediated communication include: e-mail is a limited symbolic representation system void of oratory and graphic appeals and thus open to misunderstanding, some learners prefer speaking to writing, e-mail is limited to certain kinds of learning, computer anxiety may be a barrier to participation, and cost and access to technology may also be barriers. (SWC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 415 834

Advantages and Disadvatages of Using E-mail as Instructional Aid: Some Random Thoughts

By:

Gong-Li Xu

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Gong-Li Xu
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

IR018684

Advantages and Disadvantages of Using E-mail as Instructional Aid: Some Random Thoughts

Xu, Gongli
Adult Education Research Centre
The University of British Columbia
Canada
gonglixu@unixg.ubc.ca

Introduction

The purpose of this paper is to explore educational benefits of e-mail technology as an instructional aid to classroom-based teaching as well as its limitations or disadvantages. To this aim, I will first present some practical ideas of how e-mail technology has been and can be used to aid classroom instruction. Then, with this brief presentation as a background, I wish to highlight and examine each usage of e-mail technology in terms of its effects on classroom teaching. As the use of computer technology in education is still a relatively new phenomenon, it would not be surprising that in this paper there are more questions raised than answers provided. The goal of this paper is therefore to invite attention, discussions critiques and sharing of experiences from readers who are interested in using this technology in a similar way.

The ideas of this presentation mainly reflect my hindsights on my varied experiences as a student, computer lab assistant, teaching assistant and instructor. If we classify the modes of course delivery according to the extent of computer technology is u sed, then we can have three major types: 1) courses delivered through computer-mediated communications; 2) courses that utilize computer-mediated communications as part of course activities and 3) courses in which no computer uses are involved at all. Al though, as the title suggests, this short paper focuses on the use of e-mail to facilitate both the second and third type of teaching mode, this paper is an integrated reflection on all the three modes of instruction I have participated.

Specifically, I have in mind the following three courses when writing this paper: One was a distance course at graduate level offered through a computer-mediated teleconferencing software. Another was a course where the use of e-mail was a major part of classroom activities while in the third the involvement of computer use other than word processing was almost zero. With the popularization of computer technology, most teaching techniques used in the computer-mediated conferencing are now also available in the e-mail service. Therefore, I find the experience with that distance course particularly informative when I contemplate what can be done with e-mail. Further, my experiences with conventional classroom teaching are of great inspiration in that I have become an advocate of integrating the e-mail system as part of the traditional classroom setting.

For example, in one of the courses I co-taught with the other teaching assistant, we often

asked learners at the end of each session to fill out a mini-questionnaire to find out learners' sense of the usefulness of the activities we did that day. Many of their comments expressed the same dilemma as we felt. That is, the activities we did were very good, but it could have been better if we had managed to cover other things as well. One learner commented: "Although the discussion was very good and therefore difficult to cut short, I also wish we did other things." Another learner wrote: " The activity that went well was group discussion of models (of teaching), because entire class was involved. Small groups allowed every member to more actively participate. Perhaps we should speed up our activities a little so we can get exposure to more of the items you have planned for. On the other hand, I learned much through the length of time we spent on the five perspectives (of teaching)." Of all the feedback we received from the learners, this kind of opinion was very common. It was true that there were many things we would have liked to do but did not have enough time and other resources. Then, could the use of e-mail or other computer technology have helped us solve this kind of problems? How would our teaching have been improved if we had employed the e-mail system to carry out some of the classroom activities? These were the questions that occurred to my mind after we failed to be accommodating to our learners' suggestions.

Using e-mail as instructional aid

So, what can e-mail do for us? Before answering this question, I would like to clarify what I mean when talking about e-mail as an instructional aid.

Electronic mail (e-mail) is a kind of computer-mediated communications that allow for both one-to-one and one-to-many communications via a host or mainframe computer network. Most e-mail softwares, for example, the PINE system used at the University of British Columbia, support other services such as distribution lists, group addresses, departmental networks. Very similar to on-line bulletin boards, these services allow any message or article posted to be automatically received by all those included i n the list. Thus anyone receiving messages can either 'read-only' or add their own messages. Software is now also available for some E-mail systems that allow users to do editing off-line.(Technically, it is referred to as download and upload or as file transfer functions.) This has at least three advantages: it reduces greatly the time on-line, and therefore long distance charges, if applicable; it frees up the telephone for other uses; and most importantly it allows users to take advantages of word-processing softwares, which are usually more convenient to use than word editors supported by the e-mail systems. Therefore in this presentation, the term "e-mail" is used to cover all the functions discussed above, namely, one-to-one two-way communication, distribution lists or bulletin boards, and off-line editing.

E-mail having these functions, how useful it is to us who intend to become the best teachers and learners we can be? In essence, the most important feature of e-mail systems in the context of instructional activities is its capacity to create a close connection between

teacher and learner or among groups of participants at the time and the pace of their choosing. Also significant, it can provide an electronic environment very similar to that of computer conferencing. Although less sophisticated than computer conferencing systems, e-mail systems of current stage allow us to do many things that only computer conferencing used to provide. Let's compare with the some of the key features of computer conferencing summarized by Mason (1994, p.50): Electronic mail to one or more individuals on the system; conferences in which a set of participants can read and write a group of messages; sub-conferences within conferences so that different topics of discussion can be distinguished.

Therefore, in the following part, some of the examples are drawn on my experience with distance courses where computer conferencing was the mode of delivery. These useful activities are now also feasible with e-mail systems, provided some arrangements are made with mainframe computer services. As well, by saying using e-mail as an instructional aid, I mean to take the best possible advantage of these two important features to assist in implementing teaching strategies or methods for their best effects.

What have been and can be done with e-mail technology?

Ask not only what computers can do for us, but also what we can do with them. In this section of my presentation, I will briefly summarize the instructional activities that have been or can be carried out via an e-mail system. Of course, this list is very limited to my experiences and imagination, therefore, readers are cordially invited to add on. Basically, activities accomplished with the e-mail system are of five categories:

1. Online Material Presentation. In this category, e-mail is used to present relevant course materials prepared for discussions. If scanning facilities are available, lengthy documents or reading materials can also be presented to class with ease. Learners can submit their assignments, journals through e-mail and share them with the class if appropriate.

2. Online Collaborative and Project Work. This basically means that if two or more learners decide to take up a group project, the e-mail system proves to be very convenient to send forth and back among learners themselves the work they have written for feedback or improvement before they submit to the instructor or present to the whole class.

3. Online Help Hotline: Requests for assistance can be directed to either the teacher, teaching assistant or the group, thus drawing on the collective wisdom rather than individual's. Sometimes, e-mail also enables us to find help from outside the class community. There are times in any course when it would be helpful to invite a guest speaker to contribute up-to-date information and valuable experience, to answer challenging questions. With conventional classroom approach, usually experts are

invited to the campus. Not only does this involve much work of logistic nature such as finding out right guest who is available, the details of date, time, pay, parking, and other material preparations, but also enough time must be allocated for the guest to deliver the information and for the class to have the chance to raise issues, ask questions, or debate points made by the guest. Often, we find it difficult to integrate guests into the program or course because of logistics. With the availability of e-mail, so long the guest we would like to invite has the access to e-mail, he or she could be invited to either speak to the class or join the ongoing discussion. This would not only eliminate logistic problems mentioned earlier but the interaction between guests and participants could be made easier as well. Possibly, the contact will also remain.

4. Online Group Discussion: As mentioned earlier, small group activities or group discussions are often very time-consuming, thus preventing participants from having equal chances or share of 'air time'. With e-mail, unfinished discussions can be continued. Further, group discussions can be conducted totally online. This can provide learners with access to a virtual space that supports extended discussions that a normal classroom would support but in an asynchronous, place independent mode. Each participant will have as much "air time" as they need without infringing on the rights of other members of the class. (Lauzon, 1990) Online group discussions can also be carried out in various other ways such as role plays.

   For this, I would like to mention two examples. First, the online role-play was done in the format of miniconference. This was done very successfully in a graduate course I took via computer-mediated communication. The subject of the course was on Educational Evaluation: Alternative Approaches and Practices. As part of course activities, participants "registered" for the "conference" on Educational Evaluation Approaches under the names of famous scholars, such as Tyler, Guba, Lincoln, Komoski, proponents of different orientations toward educational evaluation. The participants would have to write contributions towards the discussion from the perspectives of the roles they adopted. The intentions of this simulation were to further compare and analyze the characteristics, strengths and limitations of a variety of concepts covered in the course materials as well as to see how certain issues would be dealt with differently if different approaches were applied. The instructor, acting as mediator, first set t he stage and atmosphere by introducing who's who, the theme of the "conference", keynote speaker, etc. Then followed by presentations and discussions. There were also similar socializing functions to those "real" conferences, except that they were verbally participated, of course.

   With e-mail, roles (pseudo-names) accounts could be obtained by making arrangements with mainframe computer services. Alternatively, the instructor or the mediator could have participants send messages to his or her e-mail account first and then forward the messages to the distribution list after changing contributors' names to those of the roles they have adopted.

The second example was a role-play using thinking hat framework invented by Dr. de Bono (White hat: An objective look at data and information; Red hat: legitimizes feelings, hunches, and intuition; Black hat: Logical negative, judgment and caution; Yell ow hat: Logical positive, feasibility, and benefits; Green hat: New ideas and creative thinking; Blue hat: Control of the thinking process. For details, please refer to his Six Thinking Hats.) The thinking hats involved participants in a type of mental role playing. At any moment a learner might choose to put on one of the hats or might be asked to put on or take off a hat. All participants could use a hat of a particular color for a few moments at a time. We used this method when we were discussing a controversial perspective with regarding to teaching. The whole class was first requested to put on the White hat and make an effort to identify what major issues, concepts, assumptions, beliefs, intentions, actions in terms of this particular perspective. Then the whole class was divided into 4-5 small groups, with each group choosing one of the hats to take a look at this perspective on teaching from different points of view. The result was a very constructive discussion. The method may seem extremely simple but it did work.

It may be obvious these two kinds of role-play can also be applied successfully in face-to-face teaching situations. However, the practices would take so much time that it would be very difficult for participants to take turns in putting on hats of different colors, for instance. Therefore, we could not possibly afford to do them at the price of neglecting other important activities.

5. Evaluation: There are many ways to measure the success of a course. Usually, some sort of standard evaluation from is handed out near the end of the course, asking participants to reflect on their experiences. The problem with this kind of routine evaluations is that it is hard to get thoughtful responses amid the rush of end-of-course activities. On the other hand, learners would also appreciate timely feedback from the instructor. With e-mail, formative evaluation in the forms of feedback or questionnaires could be used., If anonymity is desired, this could be done through a mediator. In addition, as electronic journals , assignments, online discussions are likely stored in the e-mail home directory or downloaded, they could be easily retrieved for t he purpose of self-evaluation by learners themselves. As well, mid-term or final examinations can also be conducted online.

What are the advantages ?

In his **Technology, Open learning and Distance Education**, Tony Bates (1995, p. 207) has summarized instructional benefits of computer-mediated communications (including e-mail) as follows, and I personally concur:

- Developing academic discourse

- Collaborative and project work
- Knowledge building
- Maximizing the knowledge and experience of all participants
- Increasing equity of participation
- Cross-cultural participation
- Development of reflective writing skills
- Overcoming social isolation
- Emotional involvement
- Ready access to help and support
- Feedback to and direct student contact with the central academic team
- Active and interactive participation
- Freedom from constraints of time and location
- Learner control

(For details, please refer to the book itself).

In addition, e-mail technology is relatively cheap and simple to use. With menu-driven configurations becoming prevalent, the systems are very user-friendly. With online group discussions, particular the online role-playing, I would like to quote Harasim: "At issue is...how to build upon and retain the complexity of an environment like computer conferencing so that users learn to be critical thinkers by considering issues and ideas from many perspectives" (Harasim, 1990, p.59).

While the student engagement and the quality of discussions, two crucial aspects in improving our teaching, would be greatly improved with e-mail used for group discussions, it could mean a very challenging task in terms of writing. For one thing, being less assured about how one's writing would be interpreted by readers could amount to a deterrent to one's pen. (In this case, one's keyboard). Therefore, turning online group discussions into on-line role-plays might be an alternative to overcome this dispositional barrier.

What are the disadvantages?

The use of e-mail as an aid in classroom instruction could also lead to some undesirable effects. For one thing, at this stage, e-mail is still a limited symbolic representation system void of oratory and graphic appeals. Primarily textual, it is very demanding on our writing abilities in order to avoid misunderstanding. One learner in the class commented that one really have to "be explicitly clear about humorous comments, jokes". Also to assume all learners would always prefer writing to speaking is not warranted. Some learners expressed the frustration about lengthy time spent on going through messages and writing to respond to them while orally, the exchanges could be done in just a few minutes. For people who do like to stare at the screen for too long, much more paper is likely to be consumed for downloading files.

Using e-mail as an instructional aid is also limited to certain kinds of learning. For some learning which would be best picked up through demonstration, e-mail of the current phase certainly could not replace such experiential learning event. Moreover, research still needs to be done to find out to what extent the online discussion could achieve the same dynamics as that of buzz groups or the richness and stimulation of a face-to-face encounter. Not unusually, the very technology may form a new dispositional barrier towards participation, namely, computer anxiety or computerphobics. In one course, when the writer proposed using e-mail for journal writing, it was vehemently objected by a number of learners who obviously have not had good experiences with computers.

Cost and access are still major barriers as well, especially when computing services in some schools are being transformed into cost-recovery enterprises. Many of the learners at this University in fact have to rely on the school terminals rather than personal computers to access to free e-mail services. Thus, their freedom in choosing the time and place to be online is questioned.

Not conclusion

In short, I believe the use of e-mail to facilitate classroom-based instructions can bring many potential advantages. They are potential because the good effects will likely be overweighed by undesirable effects if no caution is exercised against disadvantages that might occur in the process of using this new technology. After all, computers being tools, it is the instructor who decides to employ e-mail technology should ask him/herself a very important question: what am I trying to accomplish with my t eaching? However, as commented in the book entitled Distance Education And the Mainstream, there are indications that methods of teaching in distance education and mainstream on-campus education, at the post-secondary level, are beginning to converge. (Smith, et al, 1991). The integration of e-mail technology into classroom teaching may well be such an indication. As Tony Bates (1995, p.202) pointed out: "It is still open to debate whether this technology

will result in truly new paradigms, or merely al low valued old paradigms to be used more effectively for learners...Nevertheless, there is a great deal of innovation in the use of computer-mediated communication in education, and it is also one of the fastest growing technologies, in terms of the numbers of teachers and learners who are using it." Therefore, the development in this aspect is well worth our attention and further exploration.

References

Bates, Tony, (1995) Technology, Open Learning and Distance Education. Routledge Studies in Distance Education, Hamphshire, England.

Harasim, L. (1990) (ed.) Online Education: Perspectives on a New Environment, New York: Praeger.

Lauzon, Al, (October, 1991) Enhancing Accessibility to Meaningful Learning Opportunities: A Pilot Project in Online Education at the University of Guelph. Research in Distance Education.

Mason, R (1994) Using Communications Media in Open and Flexible Learning, London: Kogan Page.

Smith, Peter, et.al. (Eds.), (1991) Distance Education and The Mainstream. Routledge,

---